

ABSTRACT OF THE DISCLOSURE

A method and apparatus of treating a surface of a sample. A sample is arranged on a stage provided in a chamber, an etching gas is continuously supplied into the chamber and a plasma is generated from the etching gas. An rf bias at a frequency of 100 kHz or higher is applied to the stage independently of the generation of the plasma, and the rf bias is modulated at a frequency of 100 Hz to 10 kHz. Thereby, a surface treatment in which a minimum feature size is 1 μm or smaller is performed on the sample.